

JCS

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Instructions on File

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Enclosure

Report by Joint Intelligence Study Publishing Board

Reference: Minutes JIS 94th Meeting
20 August 1946

The Problem

1. To study feasibility of preparing JANIS in some other form than printing in order to reduce costs.

Facts Bearing on the Problem

2. A JANIS study varies in size from 350 to 950 pages. JANIS 85, for example, consists of 759 pages and 134 insert maps. Of the 759 text pages; 172 are text, 159 pages are tables, 275 pages are halftones or text and halftones, 153 pages are line cuts or text and line cuts. For the tabulation of comparative costs (Appendix "B") 600 pages (135 straight text, 125 tables, 220 text and halftones, 120 text and line cuts) and 130 insert maps was used as the average size of a JANIS.

3. The printed JANIS page is the equivalent of three manuscript pages. Allowing for space occupied by halftones and line cuts, the average JANIS would be about 1500 manuscript pages. The photographs and line cuts would make a volume of illustrations of about 150 pages. These figures were used in estimating costs of reproduction by mimeograph and by Ulitamat or other direct-process offset mat.

Discussion

4. Costs of mimeograph and Ulitamat reproduction are shown in Appendix "A". Calculations were based on four alternative plans:

- (a) 1,000 copies, mimeographed, complete with offset-printed photographs.
- (b) 1,000 copies, offset-printed from Ulitamat or other direct-process mat, complete with offset-printed photographs.
- (c) 100 copies, mimeographed, without photographs, for limited distribution; master copy in justified electromatic typing, with photographs, to be prepared ready for future photo-offset printing whenever needed.
- (d) 100 copies, offset-printed from Ulitamat or other direct-process mat, without photographs, for limited distribution; master copy in unjustified electromatic typing, with photographs, to be prepared ready for future photo-offset printing whenever needed.

Plans (a) and (b) would involve almost three times the

134
290
14060
238
38860

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bulk of a printed JANIS or a JANIS as currently reproduced by photo-offset from electronic typed copy, as the printed JANIS page is equivalent to nearly 3 pages of manuscript. For a job as large as JANIS, mimeographing or ~~litomat~~ reproduction would be more expensive than photo-offset reproduction from electronic typed unjustified copy, largely because of high cost of assembly and binding of individually printed sheets. (In offset printing 8- or 16-page signatures can be printed, folded, and cut mechanically, thus greatly reducing the task of assembly.) In plans (a) and (b) photographs would have to be reproduced separately by offset printing, thereby complicating production and assembly and increasing costs. Plan (a) would produce poorer and less legible copy than plan (b), and both would be inferior to copy produced by photo-offset.

Plans (c) and (d) would have the advantage of providing a master copy that could be kept current and immediately available for reproduction, but would present the following disadvantages:

- 1) Only a very limited immediate distribution would be provided for.
- 2) Copies for immediate distribution would not include photographs.
- 3) Copies for immediate distribution would have the same objectionable features of bulk, and inferior legibility listed for plans (a) and (b).
- 4) Plans (c) and (d) would be expensive in that each plan would involve preparation of copy to hold for future reproduction in addition to copy for immediate use.

5. The present costs of reproducing JANIS are believed to be excessive. Accordingly, estimates were obtained from the Government Printing Office on various methods of reproduction. The GPO has recently obtained additional facilities for electronic typing and reproduction and would be able to handle a JANIS program of six (6) studies a year.

6. Cost figures on various methods of reproduction are given in Appendices "A", "B", "C", and "D".

Conclusion

7. Reproduction by mimeograph or other method of single-page reproduction, such as ~~litomat~~, is believed to be impractical for a study as large as JANIS.

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8. Of the remaining methods of reproduction, savings over the costs of the wartime JANIS (printed by letterpress) and over the present JANIS (electromatic typing and offset printing done commercially) might be effected in any of the following ways:

- (a) Set text by Linotype, tables by electromatic typewriter, and print by photo-offset. This would produce a publication of very high quality (nearly equivalent to letterpress printing) and if done by the GPO would cost less than current contracts with McGregor & Werner, Kirby Lithograph Co., and Maple Press.
- (b) Transfer offset printing only from commercial firms to GPO.
- (c) Transfer preparation of electromatic typed copy as well as offset printing to GPO.
- (d) Transfer offset printing to GPO but prepare electromatic typed copy and layout at JISPB. This last is believed to be the most satisfactory as well as the most economical plan; it would require the addition of several electromatic operators and a layout man to the JISPB staff (Appendix "D") but would permit close supervision of production with minimum expenditure of time of JISPB professional staff and would simplify security and eliminate liaison with three commercial contractors.

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APPENDIX "A"

Estimates of Costs of Reproduction by Mimeograph and Ulanat

1. Cost of Mimeographing:

1,000 copies:

Typing stencils, 1,500 pp @ \$1.00	\$1,500.00
Mimeographing 1,500,000 pp @ \$1.10 per m	1,650.00
13,000 printed covers	725.50
Binding and assembly	1,000.00
Total for 1,000 copies without illustrations	\$4,875.50
1,000 copies photograph volume 150 pp	4,413.00
Total for 1,000 copies with illustrations	\$9,288.50

2. 100 copies and preparing one master copy:

Typing stencils, 1,500 pp @ \$1.00	\$1,500.00
Mimeographing 150,000 pp @ \$1.60 per m	240.00
1,300 printed covers	700.00
Binding and assembly	100.00
Total for 100 copies without illustrations	\$2,540.00
Preparation of Master copy electronic (justified)	\$11,918.75
Total (master copy justified)	\$14,458.75
Preparation of Master copy electronic (unjustified)	\$ 8,108.75
100 copies without illustrations	2,540.00
Total (master copy unjustified)	\$10,648.75

3. Ulanat or direct image reproduction:

Cost of typing same as for mimeograph.
 Cost of printing \$1.17 per m.
 Cost of binding and assembly same as for mimeograph.

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APPENDIX "B"

Estimates of JAMES Printing and Binding Costs

1. Letterpress printing:

a. Commercial printer
(Average of 13 studios printed by Sterns or Garber)

Average number of copies	Average size	Average cost
1,414	367 pages	\$26,435.00
	Average cost per page	46.60

b. Government Printing Office (estimate)

1,000 copies 600 pages	\$25,734.00	29,594.10
Average cost per page	42.89	49.32

2. Linotype text composition, electronic tables, and offset printing:

Government Printing Office (estimate)		
1,000 copies 600 pages	\$18,900.79	21,735.90
Cost per page	31.50	36.23

3. Electronic typing (IBM) justified margin:

a. Commercial
(Based on contracts McGregor & Warner - Kirby Lithograph)

1,000 copies 600 pages	\$22,942.65
Cost per page	38.23

b. Government Printing Office
(Estimate)

1,000 copies 600 pages	\$10,505.65	12,081.56
Cost per page	17.50	21.14

4. Electronic straight typing:

a. Commercial

1,000 copies 600 pages	\$18,506.40
Cost per page	30.84

b. Government Printing Office (estimate)

1,000 copies 600 pages	\$8,944.56	11,436.25
Cost per page	14.90	19.06

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APPENDIX "C"

Detailed Breakdown of Costs of Composition, Printing & Binding

Electronic Typing and Offset Printing

1. Cost of Composition (McGregor & Werner contract):

600 p. Heads and captions @ \$1.50	\$ 750.00
475 p. Unjustified @ 2.75	1,306.25
475 p. Proofing & layout @ 1.50	712.50
600 p. Justified pages @ 5.50	3,300.00
600 p. Proofing & layout @ 1.50	900.00
125 p. Tabular matter @ 10¢ per sq. inch	2,550.00
Art work @ \$4.00 per hour	2,400.00
	<u>\$11,918.75</u>

2. Cost of Offset Printing (Kirby Lithograph contract):

600 Line negatives @ \$1.75	\$ 1,050.00	1,575.00
16,800 sq. in. Halftone negatives @ \$.15	2,520.00	3,000.
120 Line cuts @ \$1.75	210.00	350.
75 Press plates @ \$14.00	1,050.00	1,568.
37,000 16p. sig. Press Work @ \$22.00 per m	814.00	1,210.
1,000 Sp. sig. Press Work @ \$11.50 per m	11.50	15.
76,000 Sp. sig. Cutting & folding @ \$2.50 per m	190.00	285
241,000 items Gathering @ \$1.65 per m	397.65	595.65
130,000 inserts, Folding @ \$3.60 per m	468.00	468
Trimming	10.25	10.25
730,000 holes Binding @ \$.65	474.50	474.50
Stubs	62.50	62.50
41,000 sheet Paper 28 x 40	2,255.00	3,410.00
15,000 Covers @ \$48.50	725.50	725.50
1,000 Pressboard Binders	785.00	785.00
Total cost printing & binding	<u>\$21,023.90</u>	14,534.40
Total composition, printing & Binding	<u>\$22,942.65</u>	

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APPENDIX "D"

Estimate of additional personnel required if mimeograph stencils or copy for offset reproduction is to be prepared at JISPB.

1. Mimeograph or ultimat

4 typists

2. Offset from unjustified IBM electronic typed copy.

4 IBM electronic typewriter operators

1 layout specialist

3. Offset from justified IBM electronic typed copy

7 IBM electronic typewriter operators

1 layout specialist

Basis of estimate is as follows:

1. For mimeograph or ultimat

Working days per year 253
Average leave (Annual 20d, Sick 10d) 30
Net working days per typist 223
1,500 stencils or mats @ 10 per day per typist - 150 typist days
6 JANIS per year - 900 typist days
Number of typists required $900 \div 223 =$ Approximately 4.

2. For preparing unjustified IBM electronic typed copy

440 pages straight text @ 10 per day per operator	44 operator days
160 pages tabular matter @ 2 per day per operator	80 operator days
6 JANIS per year @ 124 operator days per JANIS =	744 operator days
Number of operators needed = $744 \div 223 = 3 \frac{1}{3}$ or 4	
Supervisor and layout specialist CAF-6	
Total 5 (4 CAF-5 and 1 CAF-6)	\$ 13,600.20

3. For preparing justified IBM electronic typed copy

440 pages straight text first (unjustified) copy @ 12 per day
per operator 40 operator days
160 pages tabular matter @ 2 per day per operator
80 operator days
440 pages text second (justified) copy @ 5 per day per operator
88 operator days
Total per JANIS 208 operator days
6 JANIS per year = 1,248 operator days
Number of operators needed $1,248 \div 223 =$ Approx. 6

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1 supervisor and layout specialist

CAF-6

1 layout specialist

CAF-5

Total 8 (7 CAF-5 and 1 CAF-6)

\$21,534.60.

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